Raymond Bemish

List of Publications by Year
in descending order

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56 papers	1,328 citations	279798 23 h-index	377865 34 g-index
61 all docs	61 docs citations	61 times ranked	807 citing authors

#	Article	IF	Citations
1	Machine learning product state distributions from initial reactant states for a reactive atomâ€“diatom collision system. Journal of Chemical Physics, 2022, 156, 034301.	3.0	10
2	The C(³P) + O₂(³Î£_g^{â^'}) â†' CO₂ â†" CO(¹Î£⁺) + O(¹D)/O(³P) reaction: thermal and vibrational relaxation rates from 15 K to 20â€‰000 K. Physical Chemistry Chemical Physics, 2021, 23, 11251-11263.	2.8	10
3	Capillary ionic liquid electrospray: beam compositional analysis by orthogonal time-of-flight mass spectrometry. Journal of Fluid Mechanics, 2021, 928, .	3.4	11
4	Machine Learning for Observables: Reactant to Product State Distributions for Atomâ€“Diatom Collisions. Journal of Physical Chemistry A, 2020, 124, 7177-7190.	2.5	12
5	Accurate reproducing kernel-based potential energy surfaces for the triplet ground states of N₂O and dynamics for the N + NO â†" O + N₂ and N₂ + O â†' 2N + O reactions. Physical Chemistry Chemical Physics, 2020, 22, 18488-18498.	2.8	24
6	Dynamics on Multiple Potential Energy Surfaces: Quantitative Studies of Elementary Processes Relevant to Hypersonics. Journal of Physical Chemistry A, 2020, 124, 6255-6269.	2.5	13
7	The N(⁴S) + O₂(X³Î£â^'g) â†" O(³P) + NO(X²Î) reaction: thermal and vibrational relaxation rates for the ²Aâ€², ⁴Aâ€² and ²Aâ€²â€² states. Physical Chemistry Chemical Physics, 2020, 22, 3927-3939.	2.8	30
8	Photoemission resulting from collisions of I₂ with 5â€“100 eV electrons. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 215201.	1.5	0
9	Exhaustive state-to-state cross sections for reactive molecular collisions from importance sampling simulation and a neural network representation. Journal of Chemical Physics, 2019, 150, 211101.	3.0	35
10	Solvated Ion Cluster Dissociation Rates for Ionic Liquid Electrospray Propellants. , 2019, , .		1
11	The C(3P) + NO(X2Î) â†' O(3P) + CN(X2Î£+), N(2D)/N(4S) + CO(X1Î£+) reaction: Rates, branching ratios, and final states from 15 K to 20 000 K. Journal of Chemical Physics, 2018, 149, 094305.	3.0	43
12	From in silica to in silico: retention thermodynamics at solidâ€“liquid interfaces. Physical Chemistry Chemical Physics, 2018, 20, 18610-18622.	2.8	15
13	Communication: Vibrational relaxation of CO(1Î£) in collision with Ar(1S) at temperatures relevant to the hypersonic flight regime. Journal of Chemical Physics, 2017, 146, 111102.	3.0	6
14	Reactive collisions for NO(²Î) + N(⁴S) at temperatures relevant to the hypersonic flight regime. Physical Chemistry Chemical Physics, 2017, 19, 2392-2401.	2.8	29
15	Quantum and quasiclassical trajectory studies of rotational relaxation in Arâ€“N₂⁺ collisions. Physical Chemistry Chemical Physics, 2017, 19, 27945-27951.	2.8	2
16	Orthogonal time-of-flight mass spectrometry of an ion beam with a broad kinetic energy profile. Review of Scientific Instruments, 2017, 88, 105111.	1.3	7
17	Molecular Mechanisms Underlying Solute Retention at Heterogeneous Interfaces. Journal of Physical Chemistry Letters, 2017, 8, 4600-4607.	4.6	26
18	Application of a First Generation Collisional Radiative Model for Iodine to Optical Emissions from the Plume of an Iodine Hall Effect Thruster. , 2017, , .		4

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19	A Combined Experimental and Theoretical Treatment of Ionic Liquid Thermal Dissociation. , 2017, , .		6
20	Integral cross section measurements and product recoil velocity distributions of Xe2+ + N2 hyperthermal charge-transfer collisions. Journal of Chemical Physics, 2016, 145, 044309.	3.0	2
21	Collision-induced rotational excitation in N2+(2Î£g+,v=)â€“Ar: Comparison of computations and experiment. Journal of Chemical Physics, 2016, 144, 224307.	3.0	16
22	Mass Spectrometry of Selected Ionic Liquids in Capillary Electrospray at Nanoliter Volumetric Flow Rates. , 2016, , .		10
23	Electrospray of an Energetic Ionic Liquid Monopropellant for Multi-Mode Micropropulsion Applications. , 2015, , .		26
24	Communication: Equilibrium rate coefficients from atomistic simulations: The O(3P) + NO(2Î) â†' O2(X3Î£gâ^) + N(4S) reaction at temperatures relevant to the hypersonic flight regime. Journal of Chemical Physics, 2015, 142, 091104.	3.0	22
25	Emission-Excitation Cross Sections Relevant to Krypton-Propelled Electric Thrusters. Journal of Propulsion and Power, 2015, 31, 725-736.	2.2	11
26	A guided-ion beam study of the collisions and reactions of I+ and I2+ with I2. Journal of Chemical Physics, 2015, 142, 074301.	3.0	3
27	Molecular Dynamics Simulations of 1-Ethyl-3-methylimidazolium Bis[(trifluoromethyl)sulfonyl]imide Clusters and Nanodrops. Journal of Physical Chemistry A, 2015, 119, 352-368.	2.5	32
28	Electrospray of 1-Butyl-3-Methylimidazolium Dicyanamide Under Variable Flow Rate Operations. Journal of Propulsion and Power, 2014, 30, 1701-1710.	2.2	25
29	Computational study of collisions between O(3P) and NO(2Î) at temperatures relevant to the hypersonic flight regime. Journal of Chemical Physics, 2014, 141, 164319.	3.0	34
30	Krypton charge exchange cross sections for Hall effect thruster models. Journal of Applied Physics, 2013, 113, 163301.	2.5	25
31	A new technique to study plasma chemistry kinetics. Journal of Physics: Conference Series, 2011, 300, 012007.	0.4	4
32	Electron-Catalyzed Mutual Neutralization of Various Anions with<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>Ar</mml:mi><mml:mo>+</mml:mo></mml:msup></mml:math>: Evidence of a New Plasma Process. Physical Review Letters, 2011, 106, 018302.	7.8	18
33	Mesospheric implications for the reaction of Si⁺ with O₂(a¹Î”_g). Geophysical Research Letters, 2010, 37, .	4.0	5
34	Formation of cold ion-neutral clusters using superfluid helium nanodroplets. Review of Scientific Instruments, 2010, 81, 054101.	1.3	8
35	Solvent structures of mixed water/acetonitrile mixtures at chromatographic interfaces from computer simulations. Physical Chemistry Chemical Physics, 2008, 10, 4765.	2.8	40
36	Adsorption of Acridine Orange at a C8,18/Water/Acetonitrile Interface. Journal of Physical Chemistry B, 2007, 111, 10208-10216.	2.6	41

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37	Fragmentation of HCN in optically selected mass spectrometry: Nonthermal ion cooling in helium nanodroplets. Journal of Chemical Physics, 2005, 123, 141103.	3.0	26
38	Probing Charge-Transfer Processes in Helium Nanodroplets by Optically Selected Mass Spectrometry (OSMS):Â Charge Steering by Long-Range Interactions. Journal of the American Chemical Society, 2005, 127, 7235-7242.	13.7	65
39	Aqueous Phosphoric Acid as a Mild Reagent for Deprotection of the t-Butoxycarbonyl Group.. ChemInform, 2004, 35, no.	0.0	0
40	Electron Impact Ionization in Helium Nanodroplets:Â Controlling Fragmentation by Active Cooling of Molecular Ions. Journal of the American Chemical Society, 2004, 126, 11283-11292.	13.7	65
41	Aqueous phosphoric acid as a mild reagent for deprotection of the t-butoxycarbonyl group. Tetrahedron Letters, 2003, 44, 8113-8115.	1.4	41
42	Oxidation of carbamate-protected alkylhydrazines to the corresponding hydrazones under Swern conditions. Tetrahedron Letters, 2001, 42, 1453-1454.	1.4	8
43	Infrared spectroscopy and ab initio potential energy surface for Neâ€“C2H2 and Neâ€“C2HD complexes. Journal of Chemical Physics, 1998, 109, 8968-8979.	3.0	41
44	The N2H+â€“He intermolecular potential energy surface: A vibrational adiabatic correction. Journal of Chemical Physics, 1997, 106, 8672-8680.	3.0	36
45	Near-infrared laser spectroscopy of the Arâ€“C2HD complex:. Chemical Physics Letters, 1997, 281, 272-280.	2.6	26
46	Molecular control using dc electric fields: quenching of the tunneling in HF dimer. Chemical Physics Letters, 1996, 251, 182-188.	2.6	38
47	The structure and intermolecular dynamics of the nitrous oxideâ€“ethylene complex: Experiment and ab initio theory. Journal of Chemical Physics, 1996, 104, 4411-4418.	3.0	13
48	Abinitioand scaled potential energy surfaces for Arâ€“C2H2: Comparison with scattering and spectroscopic experiments. Journal of Chemical Physics, 1996, 105, 10462-10471.	3.0	32
49	The argonâ€“diacetylene complex: An example of distributed interactions and transferable potentials. Journal of Chemical Physics, 1996, 105, 10171-10177.	3.0	10
50	High resolution infrared molecular beam spectroscopy of cyanoacetylene clusters. Journal of Chemical Physics, 1995, 103, 8828-8839.	3.0	23
51	The ethyleneâ€“carbon dioxide complex: A double internal rotor. Journal of Chemical Physics, 1995, 103, 7788-7795.	3.0	18
52	Photodissociation of molecules oriented by dc electric fields: Determining photofragment angular distributions. Journal of Chemical Physics, 1994, 101, 9447-9456.	3.0	71
53	Probing the dynamics of weakly bound complexes using high-resolution laser spectroscopy. Faraday Discussions, 1994, 97, 57.	3.2	29
54	Photofragment vibrational, rotational, and translational distributions for N2â€“HF (v=1). Journal of Chemical Physics, 1994, 101, 9457-9468.	3.0	61

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55	The Arâ€“C2H2 intermolecular potential from high resolution spectroscopy and ab initio theory: A case for multicenter interactions. Journal of Chemical Physics, 1993, 99, 8585-8598.	3.0	92
56	Collision-induced dissociation of positive and negative copper oxide cluster ions generated by direct laser desorption/ionization of copper oxide. International Journal of Mass Spectrometry and Ion Processes, 1990, 102, 115-132.	1.8	27